



MIAMI-DADE COUNTY  
**PRODUCT CONTROL SECTION**  
 11805 SW 26 Street, Room 208  
 Miami, Florida 33175-2474  
 T (786)315-2590 F (786) 31525-99  
[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
 BOARD AND CODE ADMINISTRATION DIVISION  
**NOTICE OF ACCEPTANCE (NOA)**

**Johns Manville Corporation**  
 717 17th Street  
 Denver, CO 80202

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: Johns Manville APP Modified Bitumen Roofing Systems over Lightweight Concrete Decks.**

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 16-0413.05 and consists of pages 1 through 10.  
 The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 16-0906.07  
 Expiration Date: 07/05/21  
 Approval Date: 10/06/16  
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## ROOFING SYSTEM APPROVAL

|                                 |                      |
|---------------------------------|----------------------|
| <b>Category:</b>                | Roofing              |
| <b>Sub-Category:</b>            | Modified Bitumen     |
| <b>Materials:</b>               | APP/SBS              |
| <b>Deck Type:</b>               | Lightweight Concrete |
| <b>Maximum Design Pressure:</b> | -75 psf.             |

### TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

| <u>Product</u>  | <u>Dimensions</u> | <u>Test Specification</u>     | <u>Product Description</u>   |
|-----------------|-------------------|-------------------------------|--|
| APPeX 4.5M FR   | 39-3/8" x 32'10"  | ASTM D6222<br>Type I Grade G  | APP modified asphalt, polyester reinforced, fire-retardant, mineral surfaced membrane.                                       |
| APPeX 4S        | 39-3/8" x 32'10"  | ASTM D6222<br>Type I Grade S  | APP modified asphalt, polyester reinforced, smooth surfaced membrane <b>for use as a Base and/or Ply Sheet only.</b>         |
| Tricor M FR     | 39-3/8" x 34'1"   | ASTM D6223                    | APP modified asphalt, polyester / glass reinforced, granule surfaced membrane.   |
| Tricor M FR CR  | 39-3/8" x 34'1"   | ASTM D6223                    | APP modified asphalt, polyester / glass reinforced, coated granule surfaced membrane.  |
| Tricor S        | 39-3/8" x 32'10"  | ASTM D6223                    | APP modified asphalt, polyester / glass reinforced, smooth surfaced membrane <b>for use as a Base and/or Ply Sheet only.</b> |
| DynaBase HW     | 39-3/8" x 49'2"   | ASTM D6163<br>Type 1 Grade S  | SBS modified asphalt, glass fiber reinforced, smooth surfaced sheet.   |
| DynaFast 180 S  | 39-3/8" x 49'2"   | ASTM D6164                    | SBS modified asphalt, polyester reinforced, smooth surfaced sheet.   |
| DynaFast 180 HW | 39-3/8" x 49'2"   | ASTM D6164                    | SBS modified asphalt, polyester reinforced, smooth surfaced sheet.   |
| DynaFast 250 HW | 39-3/8" x 32'10"  | ASTM D6164                    | SBS modified asphalt, polyester reinforced, smooth surfaced base sheet.  |
| DynaWeld 250 S  | 39-3/8" x 32'-10" | ASTM D6164<br>Type II Grade S | SBS modified asphalt, polyester reinforced, smooth surfaced sheet.   |

### APPROVED INSULATIONS:

TABLE 2

| <u>Product Name</u> | <u>Product Description</u> | <u>Manufacturer (With Current NOA)</u> |
|---------------------|----------------------------|--|
| N/A                 | N/A                        | N/A                                    |



**APPROVED FASTENERS:**

**TABLE 3**

| <b>Fastener Number</b> | <b>Product Name</b>                         | <b>Product Description</b>  | <b>Dimensions</b>                   | <b>Manufacturer (With Current NOA)</b> |
|------------------------|---|---|-------------------------------------|--|
| 1.                     | Trufast Twin Loc-Nail Batten Fastener       | Base sheet fastener for use with Trufast Twin Loc Coiled Batten Bar.                                  | Min. 1.8" length                    | Altenloh, Brink & Co. U.S., Inc.       |
| 2.                     | Trufast Twin Loc Coiled Batten Bar          | Oval pre-punched metal batten bar   | 1" x 100' coil                      | Altenloh, Brink & Co. U.S., Inc.       |
| 3.                     | Lightweight Concrete (LWC) CR Base Fastener | Galvanized double spreading leg fastener for securing base sheets to lightweight insulating concrete. | 1.7" shank with 2.7" integral plate | Johns Manville                         |
| 4.                     | High Load Fastener                          | Insulation and membrane fastener for steel, wood or concrete  | #15 x 14" max. #3Phillips hd        | Johns Manville                         |
| 5.                     | High Load Plate                             | Seam plate with reinforcing ribs and eyehooks   | 2-3/8" round steel plate            | Johns Manville                         |

**EVIDENCE SUBMITTED:**

| <b>Test Agency</b>              | <b>Test Identifier</b> | <b>Description</b>                        | <b>Date</b> |
|---------------------------------|------------------------|---|-------------|
| Underwriters Laboratories, Inc. | R10167                 | UL 790                                    | 05/27/13    |
| PRI Construction Materials, LLC | JMC-053-02-01          | ASTM D5147/D6222                          | 05/01/13    |
|                                 | JMC-054-02-01          | ASTM D5147/D6223                          | 06/04/12    |
|                                 | JMC-055-02-01          | ASTM D 6509                               | 05/29/12    |
|                                 | JMC-070-02-01          | ASTM D 2178 TYPE IV                       | 04/17/12    |
|                                 | JMC-071-02-01          | ASTM D 2178 TYPE VI                       | 04/17/12    |
|                                 | JMC-072-02-02.1        | ASTM D4601                                | 05/25/16    |
|                                 | JMC-074-02-01          | ASTM D4897                                | 04/17/12    |
|                                 | JMC-093-02-01          | ASTM D4601                                | 08/02/12    |
|                                 | JMC-107-02-01 Rev 4    | ASTM D903/D1876/D5147<br>TAS 117(B) & (A) | 11/01/13    |
|                                 | JMC-131-02-01 Rev 1    | TAS 114(C)<br>TAS 114(J)                  | 08/20/13    |
|                                 | JMC-222-02-02          | TAS 114(J)                                | 04/22/15    |
|                                 | JMC-222-02-04          | TAS 114(J)                                | 08/14/15    |
| JMC-132-02-02                   | TAS 114(D)             | 07/01/13                                  |             |
| JMC-167-02-01                   | TAS 114(C)             | 08/05/13                                  |             |

**DECK STRESS ANALYSIS CALCULATIONS/REPORTS**

| <b>Engineer/Agency</b>  | <b>Identifier</b>          | <b>Assemblies</b>             | <b>Date</b> |
|-------------------------|----------------------------|-------------------------------|-------------|
| Zachary R. Priest, P.E. | Signed/Sealed Calculations | E(1), E(2), E(3), E(4), E(5), | 04/25/16    |



## APPROVED ASSEMBLIES

**Membrane Type:** APP

**Deck Type 7:** Lightweight Concrete, Non-insulated

**Deck Description:** Celcore Lightweight Concrete

**System Type E(1):** Base sheet mechanically fastened.

**Deck:** Minimum 396 psi Celcore MF with Celcore HS Rheology Modifying Admixture with minimum 1/4" slurry coat; minimum 1" EPS board; minimum 2" top coat with PVA curing compound cast over Structural Concrete or Minimum 22 ga., Type B, Grade 33 vented steel deck treated with Celcore S-1. Steel deck secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 5 ft o.c. side laps attached with 1/4" – 14 x 7/8" HWH screws spaced 12" o.c.

**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

### All General and System limitations apply.

**Base Sheet:** One ply of JM APP Base with 4" laps installed with min. 1.7" Lightweight Concrete (LWC) CR Base Fastener fastened 12" o.c. in the 4" lap and 12" o.c. in three, equally spaced staggered rows in the field of the roll.

**Ply Sheet:** One or more ply sheets of Tricor S, or APPex 4S, torch adhered.

**Membrane:** One or more plies of APPex 4.5M FR, Tricor M FR, or Tricor M FR CR torch adhered with 4-inch side laps.

**Maximum Design Pressure:** -45 psf. (See General Limitation #7.)



**Membrane Type:** APP

**Deck Type 4:** Lightweight Concrete, Non-insulated

**Deck Description:** Celcore Lightweight Concrete

**System Type E(2):** Base sheet mechanically fastened.

**Deck:** Min. 439 psi Celcore MF with Celcore HS Rheology Modifying Admixture; Min. 1/4" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound cast over Structural concrete or Min. 22 ga Type B, Grade 33 vented steel deck treated with Celcore S-1. Steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft o.c. with 5/8" puddle welds spaced 6 in. o.c. Side laps attached with 1/4" – 14 x 7/8" HWH SD screws with 1/2" washer spaced 12 in. o.c.  
**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

**All General and System limitations apply.**

**Vapor Barrier:** (For structural concrete; Optional) DynaBase HW torch applied to structural concrete deck prepared with ASTM D41 primer.

**Base Sheet:** One ply of DynaFast 180 HW or DynaFast 250 HW mechanically fastened with minimum 1.8" Trufast Twin Loc-Nail Batten Fastener and Trufast Twin Loc Coiled Batten Bar spaced 6" o.c. in the center of the minimum 4" torch welded side laps.

**Ply Sheet:** (Optional) One or more plies of DynaFast 180 HW, DynaWeld 250 S or DynaFast 250 HW heat welded while maintaining minimum 4" side laps.

**Membrane:** One or more plies of APPeX 4.5M FR, Tricor M FR, or Tricor M FR CR heat welded while maintaining 4" side laps

**Maximum Design Pressure:** -52.5 psf. (See General Limitation #7.)



**Membrane Type:** APP

**Deck Type 4:** Lightweight Concrete, Non-insulated

**Deck Description:** Celcore Lightweight Concrete

**System Type E(3):** Base sheet mechanically fastened.

**Deck:** Min. 498 psi Celcore MF with Celcore HS Rheology Modifying Admixture; Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound cast over Structural Concrete or Min. 22 ga. Type B, Grade 33 vented steel deck shall be secured 6" o.c. to structural supports spaced a maximum of 5 ft. o.c. with 5/8" puddle welds spaced 6 in. o.c. Side laps attached with 1/4" – 14 x 7/8" HWH SD screws with 1/2" washer spaced 15 in. o.c.  
**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

**All General and System limitations apply.**

**Vapor Barrier:** (For structural concrete; Optional) DynaBase HW torch applied to structural concrete deck prepared with ASTM D41 primer.

**Base Sheet:** One ply of DynaFast 180 HW or DynaFast 250 HW mechanically fastened with minimum 1.8" Trufast Twin Loc-Nail Batten Fastener and Trufast Twin Loc Coiled Batten Bar spaced 6" o.c. in the center of the minimum 4" torch welded side laps.

**Ply Sheet:** (Optional) One or more plies of DynaFast 180 HW, DynaWeld 250 S or DynaFast 250 HW heat welded while maintaining minimum 4" side laps.

**Membrane:** One or more plies of APPeX 4.5M FR, Tricor M FR, or Tricor M FR CR heat welded while maintaining 4" side laps

**Maximum Design Pressure:** -60 psf. (See General Limitation #7.)



**Membrane Type:** APP  
**Deck Type 7:** Lightweight Concrete, Non-insulated  
**Deck Description:** Elastizell Lightweight Concrete  
**System Type E(4):** Base sheet mechanically fastened.  
**Deck:** Min. 445 psi Elastizell cellular lightweight concrete with Zell-Crete Fibers. Min. 1/8" slurry coat with Min. 1" EPS board; Min. 2" top coat, cast over Structural concrete or Min. 22 ga. Type B, Grade 33 vented steel deck secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 5 ft o.c. Side laps attached with 1/4" – 14 x 7/8" HWH screws spaced 12" o.c.  
**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

**All General and System Limitations apply.**

**Base Sheet:** One ply of DynaFast 180 HW, or DynaFast 250 HW mechanically fastened with High Load Fasteners and High Load Plates spaced 6" o.c. in the center of the minimum 4" heat welded side laps.

**Ply Sheet:** (Optional) One or more plies of DynaFast 180 HW, DynaWeld 250 S or DynaFast 250 HW heat welded while maintaining minimum 4" side laps.

**Membrane:** One or more plies of APPEX 4.5M FR, Tricor M FR, or Tricor M FR CR heat welded while maintaining 4" side laps.

**Maximum Design Pressure:** -60 psf. (See General Limitation #7)



**Membrane Type:** APP  
**Deck Type 7:** Lightweight Concrete, Non-insulated  
**Deck Description:** Elastizell Lightweight Concrete  
**System Type E(5):** Base sheet mechanically fastened.  
**Deck:** Min. 445 psi Elastizell cellular lightweight concrete with Zell-Crete Fibers. Min. 1/8" slurry coat with Min. 1" EPS board; Min. 2" top coat, cast over minimum 22 ga. Type B, Grade 33 vented steel deck secured with 5/8" diameter puddle welds at each flute with structural supports spaced a maximum 5 ft o.c. Side laps attached with 1/4" – 14 x 7/8" HWH screws spaced 12" o.c.  
**This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.**

**All General and System Limitations apply.**

**Base Sheet:** One ply of JM APP Base mechanically fastened with 1.7' Lightweight Concrete (LWC) CR Base Sheet Fasteners spaced 7" o.c. in the 4" lap and 7" o.c. in the center in two (2) equally spaced staggered rows in the field of the roll.

**Note: Base sheet fasteners shall be tested for withdrawal resistance in compliance with Testing Application Standard TAS 105 to confirm compliance with the wind load requirements of applicable Building Code.**

**Ply Sheet:** One or more plies of Tricor S, or APPeX 4S, torched adhered.  
**Membrane:** One or more plies of APPeX 4.5M FR, Tricor M FR, or Tricor M FR CR torch adhered with 4-inch side laps.  
**Maximum Design Pressure:** -75 psf. (See General Limitation #7)



**Membrane Type:** APP

**Deck Type 4:** Lightweight Concrete, Non-insulated

**Deck Description:** Celcore Lightweight Concrete

**System Type E(6):** Base sheet mechanically fastened.

**Deck:** Min. 498 psi Celcore MF with Celcore HS Rheology Modifying Admixture; Min. 1/8" slurry coat; Min. 1" EPS board; Min. 2" top coating with PVA curing compound cast over Cementitious Wood Fiber Deck.

**All General and System limitations apply.**

**Base Sheet:** One ply of DynaFast 180 HW or DynaFast 250 HW mechanically fastened with minimum 1.8" Trufast Twin Loc-Nail Batten Fastener and Trufast Twin Loc Coiled Batten Bar spaced 6" o.c. in the center of the minimum 4" torch welded side laps.

**Ply Sheet:** (Optional) One or more plies of DynaFast 180 HW, DynaWeld 250 S or DynaFast 250 HW heat welded while maintaining minimum 4" side laps.

**Membrane:** One or more plies of APPEX 4.5M FR, Tricor M FR, or Tricor M FR CR heat welded while maintaining 4" side laps

**Maximum Design Pressure:** -60 psf. (See General Limitation #9.)



## LIGHTWEIGHT INSULATING CONCRETE SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.
3. For systems where specific lightweight insulating concrete is not referenced, the minimum design mix shall be a minimum of 300 psi.

## GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

**Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**

5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant

**(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**

8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners).

**(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**

10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

## END OF THIS ACCEPTANCE



NOA No.: 16-0906.07  
Expiration Date: 07/05/21  
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